

2. A substantially purified, naturally-occurring polypeptide having at least 90% amino acid identity to SEQ ID NO:1.

12. A composition comprising the protein of claim 1 and a suitable pharmaceutical carrier.

13. A purified antibody which specifically binds to the polypeptide of claim 1.

14. A purified agonist of the polypeptide of claim 1.

15. A purified antagonist of the polypeptide of claim 1.

16. A method for treating cancer comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 12.

17. A method for treating a neuronal disorder comprising administering to a subject in need of such treatment an effective amount of the antagonist of claim 15.

18. A method for treating an immunological disorder comprising administering to a subject in need of such treatment an effective amount of the antagonist of claim 15.

21. A purified polypeptide comprising an immunogenic fragment of the amino acid sequence of SEQ ID NO:1.

23. An isolated polynucleotide encoding a polypeptide of claim 21.

24. An isolated polynucleotide encoding a polypeptide of claim 22.

25. An isolated polynucleotide of claim 24, having a sequence of SEQ ID NO:1.

26. A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 23.

27. A cell transformed with a recombinant polynucleotide of claim 26.

28. A method for producing a polypeptide of claim 21, the method comprising:

a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide encoding the polypeptide of claim 21, and

b) recovering the polypeptide so expressed.

29. A method of claim 28, wherein the polypeptide has the sequence of SEQ ID NO:1.

30. An isolated antibody which specifically binds to a polypeptide of claim 21.

31. An isolated polynucleotide comprising a sequence selected from the group consisting of:

a) a polynucleotide sequence of SEQ ID NO:2,

b) a naturally-occurring polynucleotide sequence having at least 90% sequence identity to the sequence of SEQ ID NO:2,

c) a polynucleotide sequence complementary to a),

d) a polynucleotide sequence complementary to b), and

e) a ribonucleotide equivalent of a)-d).

32. An isolated polynucleotide comprising at least 60 contiguous nucleic acids of claim 31.

33. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 31, the method comprising:

- a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and
- b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

34. A method of claim 33, wherein the probe comprises at least 60 contiguous nucleotides.

35. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 31, the method comprising:
- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and
  - b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

40. A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a sequence of claim 24, the method comprising:

- a) exposing a sample comprising the target polynucleotide to a compound, and
- b) detecting altered expression of the target polynucleotide.

41. A method for identifying mature osteoblasts in a mixed tissue sample comprising:
- a) raising antibodies that bind specifically to the protein of claim 1,
  - b) contacting said antibodies with a mixed tissue sample containing mature osteoblasts wherein said mature osteoblasts express the protein of claim 1, and
  - c) detecting the binding of said antibodies to said mature osteoblasts, thereby identifying mature osteoblasts in a mixed tissue sample.